

Claims

- [c1] 1. A coaxial connector for use with a coaxial cable having an outer conductor, comprising:
- a clamp nut adapted to fit over the outer conductor, the clamp nut having threads that mate with corresponding threads on a connector body;
 - a circular coil spring adapted to fit over a flared leading edge of the outer conductor;
 - the connector body having an annular wedge surface adapted to mate with the flared leading edge of the outer conductor;
 - the threads drawing the clamp nut towards the connector body, driving the circular coil spring to exert a compression force that urges the flared leading edge into contact with the annular wedge surface;
 - a positive stop between the clamp nut and the connector body limiting the compression force to a desired maximum level by preventing further movement of the clamp nut towards the connector body.
- [c2] 2. The connector of claim 1, wherein the positive stop is formed by contact between a back end of the connector body and a shoulder formed in the clamp nut.
- [c3] 3. The connector of claim 1, further including a thrust collar positioned between the clamp nut and the circular coil spring, whereby the clamp nut drives the thrust collar into the circular coil spring.
- [c4] 4. The connector of claim 1, further including a stop o-ring positioned

between the connector body and the clamp nut.

- [c5] ✓ 5. The connector of claim 1, further including an outer conductor o-ring positioned between the outer conductor and the clamp nut.
- [c6] ✓ 6. The connector of claim 1, further including an inner contact positioned coaxially within and electrically isolated from the connector body by an insulator.
- [c7] ✓ 7. The connector of claim 1, further including one of a BNC, Type-N and a DIN interface at a connector end of the connector body.
- [c8] 8. A coaxial connector for use with a coaxial cable having an outer conductor, comprising:
a clamp nut adapted to fit over the outer conductor, the clamp nut having threads that mate with corresponding threads on a connector body;
a means for compression adapted to fit over a flared leading edge of the outer conductor;
the connector body having an annular wedge surface adapted to mate with the flared leading edge of the outer conductor;
the threads drawing the clamp nut towards the connector body, driving the means for compression to exert a compression force that urges the flared leading edge into contact with the annular wedge surface;
a positive stop between the clamp nut and the connector body limiting the compression force to a desired maximum level by preventing further movement of the clamp nut towards the connector body.
- [c9] 9. The connector of claim 8, wherein the positive stop is formed by

contact between a back end of the connector body and a shoulder formed in the clamp nut.

[c10] 10. The connector of claim 8, further including a thrust collar positioned between the clamp nut and the means for compression, whereby the clamp nut drives the thrust collar into the circular coil spring.

[c11] 11. The connector of claim 8, wherein the means for compression has a limited deformation characteristic.

[c12] 12. The connector of claim 8, wherein the means for compression is one of a circular coil spring, a ring having a plurality of beads, a ring having a plurality of wedge segments, a ring with a plurality of spring fingers and spring fingers formed in the clamp nut.

[c13] 13. A coaxial connector for use with a coaxial cable having an outer conductor, comprising:

- a clamp nut adapted to fit over the outer conductor, the clamp nut having threads that mate with corresponding threads on a connector body;
- a circular coil spring adapted to fit over a flared leading edge of the outer conductor;
- the connector body adapted to engage the outer conductor;
- the threads drawing the clamp nut towards the connector body, driving the circular coil spring to exert a compression force that urges the outer conductor into contact with the connector body
- a positive stop between the clamp nut and the connector body limiting the compression force to a desired maximum level by preventing further movement of the clamp nut towards the connector body.

[c14] 14. The connector of claim 13, wherein the positive stop is formed by
✓ contact between a back end of the connector body and a shoulder
formed in the clamp nut.

[c15] 15. The connector of claim 13, further including a thrust collar positioned
○ between the clamp nut and the circular coil spring, whereby the clamp
nut drives the thrust collar into the circular coil spring.

[c16] 16. A method for attaching a coaxial connector to a coaxial cable having
✓ an outer conductor, comprising the steps of:
-placing a clamp nut over a cable end;
-stretching a circular coil spring over a flared leading edge of the cable
end;
-mating a connector body to the cable end;
-threading the clamp nut to the connector body until a positive stop is
reached; the threading urging the clamp nut against the circular coil
spring against the flared leading edge against the connector body,
creating a desired compression force of the flared leading edge onto the
connector body.